

great facility. Mr. Collins's Pipit, though rather hard hit, is evidently older than Swaysland's, and is also, I believe, a male. It seems probable, when we consider the time it was killed, that it had bred somewhere in this country, perhaps not far off, and was then thinking of departure. The Rottingdean bird likewise had migration in view, doubtless. I have preserved the sternum of the latter. Mr. Tristram, in his catalogue of 1858, says of this bird, "it is *the* Pipit of the Sahara Desert, and its eggs vary as widely as those of the Tree Pipit in England;" and Mr. Wheelwright states the Tawny Pipit (*A. campestris*, Briss.) to occur in Sweden, "where it is confined to the sandy shores of the south." Notwithstanding its wide range, it is strange that no examples have previously been recorded here. A genuine British-taken nest of eggs of *Anthus rufescens* may not be impossible, therefore, to a pains-taking Sussex collector or others; and that such a piece of good fortune may befall some of his 'Ibis' friends is the sincere desire and wish of the individual who has ventured to trouble them with this communication.

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## VI.—On the Birds of the Interior of British North America.

By Captain BLAKISTON.

WHEN I first thought of a communication on this subject, my intention was simply to supply additional notes concerning specimens collected during my wanderings in the Indian country, between Hudson's Bay and the Rocky Mountains, in 1857, 1858, and 1859, which I was prevented from attaching to the list published in 'The Ibis' (Nos. 12 and 13) by the shortness of my stay in England previous to leaving for China. On going through my note-books, however, I found many observations on birds that I had not been fortunate enough to preserve specimens of, which I considered ought not to be lost; and having, when identifying my collection, rummaged up most that was previously known respecting the ornithology of the northern part of the American continent, which I found much scattered, I determined upon making this as complete a list as possible of the birds inhabiting the interior portion of the vast tract stretching from ocean to ocean, known as British North America,

As the title which heads this paper may seem to some persons rather ambiguous, I will first observe, that by the "interior" of British North America I mean the wild uncultivated region which, tenanted by few besides the aboriginal Indian tribes, lies to the north and west of Lake Superior, and may be said to be bounded by the Rocky Mountains, the 49th parallel of north latitude (which is the international boundary), Canada, Hudson's Bay, and the Arctic Sea; and, secondly, that the birds included are such as have been identified as inhabitants of that area by specimens reliably authenticated. With respect to the species enumerated, I should state that I have added to my own those mentioned in the 'Fauna Boreali-Americana' of Richardson and Swainson, and in the narratives of Arctic expeditions made since that time. Next to this, I have included the birds given by Mr. Andrew Murray in a paper entitled "Contributions to the Natural History of the Hudson's Bay Company's Territories," published in the 'Edinb. New Phil. Journ.' for April 1859, which seems to have been drawn up with care and caution; and also such birds as have been received by the Smithsonian Institution at Washington from the same country. I had, however, nearly completed the list when I discovered a most valuable addition to the ornithology of the north-west in an account, based on a large collection, of the "Mammals, Birds, &c., of the Mackenzie River District," by Mr. Bernard H. Ross, of the Hudson's Bay Company's Service, published in the 'Natural History Review' for July 1862. I need scarcely say that this unexpected source of information has been carefully attended to; and it affords me, as it must most American ornithologists, the greatest satisfaction that so much has been done in that out-of-the-way part of the world. The principal thing that I feel in want of is a knowledge of the doings of Mr. R. Kennicott, an American collector, who, having spent two winters in the north, has made extensive collections. However, I hope that this may be added by Professor Baird in a future number of 'The Ibis,' and I feel sure he will gladly do this for the sake of the readers of this Magazine.

With respect to the nomenclature and arrangement, I have, for the sake of uniformity, and in order to save the space requi-

site for synonyms and reference to authorities, adopted that of Professor S. F. Baird in his admirable 'Report on the Birds of North America,' because that publication, being the result of much labour, must hereafter be looked on as a standard synopsis for reference on American ornithology; and I will here mention that I am indebted to its author for material assistance in the identification of my collection, he having supplied me with specimens from the Smithsonian Institution of those species that were likely to be confounded together.

Recurring to the geographical area to which the following notes refer, a glance at a map is sufficient to show that, being quite the heart of the northern part of the continent, its fauna may be considered strictly American; for, being well removed from both the eastern and western sea-boards, it ought not to include stragglers from either Europe or Asia. Some Pacific forms, however, occur, as might be expected, in the north-western corner, namely, on the Mackenzie River and its tributaries; for the configuration of the west coast north of the Columbia is such, that birds taking a direct north flight would naturally strike the upper waters of the Yukon River, flowing through the Russian territory, between which and the Mackenzie the lowness of the northward extension of the Rocky Mountain range is hardly a barrier; and consequently we find not only stragglers, but regular visitants from the Pacific frequenting the north part of the valley of the Mackenzie and adjacent Arctic shore. Such birds, therefore, are here included, at least so many as are known to us; and I have sometimes mentioned the occurrence on the Yukon of certain species (although that is beyond my bounds), in order to draw attention to them. For like reason also, I have noticed birds which have been found by American expeditions on the Upper Missouri; but, like the last, they have only been referred to incidentally, and do not figure in the list in CAPITALS, such being applied only to those ascertained to inhabit some portion of the "interior" as defined above; and no species which have been found only in Labrador and the north-east Arctic lands, British Columbia, or any part of Canada have been admitted; but I have drawn up this paper with the sole intention of sup-

plying a local list, brought up to the present time, of the birds of the interior of British North America, and, as such, I shall feel honoured by its appreciation.

## Order I. ACCIPITRES.

### CATHARTES AURA.

In the 'Fauna Boreali-Americana' a specimen of this Vulture is recorded from the Saskatchewan\*. An individual was shot at Red River Settlement on the 27th of April, 1859, which I examined, and I was very sorry that my departure the following day, on a journey to the United States, prevented my preserving it. What adds to the interest of this second capture is, that at that date, it being a late spring, the winter's snow was covering the ground to the depth of a foot, while the rivers were still ice-bound. Besides this, I observed a Vulture, which I took to be *C. aura*, at Fort Carlton, near the forks of the Saskatchewan River, in latitude 53°, on the 7th of May, the year previous; and again on the 2nd of September of the same year, I saw one feeding on the remains of a dead horse, abandoned by some Kootonay Indians, at the western base of the Rocky Mountains, a few miles south of where I had determined the international boundary (the 49th parallel) to exist. Again, I saw many Vultures in the northern part of the State of Minnesota in the early part of the May following; and there are several specimens in the collection of the Smithsonian Institution at Washington from near the 49th parallel. These latter instances, of course, were not on British ground, although very near it. They will not, therefore, swell the number of occurrences in the region treated of in this paper, where the Turkey Buzzard cannot be said to be common. The only part of it, indeed, as far as I can ascertain, that it inhabits is the prairie country that lies to the south and west of Lake Winipeg, which may be considered as the northern extension of the "high central plains" between the valley of the Mississippi and the Rocky Mountains.

\* Saskatchewan is thus spelt, as being most in keeping with the Indian pronunciation of the "Strong Current."



## 1\*. FALCO ANATUM.

Besides my specimen from near the head-waters of the south branch of the Saskatchewan River ('Ibis,' vol. iii. p. 315), I have received the American Peregrine from the west coast of Hudson's Bay; and Mr. Bernard Ross notices it, but says it is rare on the Mackenzie.

## 2. FALCO COLUMBARIUS.

With respect to this species, I would correct a typographical error which occurs in my former notes ('Ibis,' vol. iii. p. 316), where the colour of the "feet, cere, and space round the eye" of a female should be *light* yellow, in contradistinction to the *bright* yellow of the male, No. 117. This distinction was noticed in the case of each of the two pairs which I examined. The bird figured in the 'Fauna Boreali-Americana,' pl. 25, as *F. æsalon*, is doubtless the Pigeon-Hawk. In my former papers ('Ibis,' vol. iii. p. 316), I mentioned having obtained eggs of this species. Since then, I have seen Part 1 of Dr. Brewer's 'North American Oology,' where he has figured an egg supposed to belong to it, but in the letter-press mentions that Mr. Audubon's figure is very different. My specimens prove that Mr. Audubon was correct, and that Dr. Brewer has made an unlucky selection in taking a specimen when he was only told that a bird which was given to him at the same time was the parent, in preference to the personal observation of a naturalist of Mr. Audubon's merits. The nest which I found (the parent birds belonging to which I shot, and preserved the male) was situated in a small clump of willows and aspens on the prairie, not more than ten feet from the ground, and contained four eggs. The eggs and bird collected by M. Bourgeau corresponded with my own. I find that Mr. Bernard Ross obtained this bird as far north as the Arctic Circle, on Mackenzie River, and I am glad to see that he has also secured the egg.

FALCO CANDICANS, F. ISLANDICUS, et F. GRÆNLANDICUS.

The Gyr-Falcon is given in the 'Fauna Bor.-Am.,' as identified by a specimen from Hudson's Bay, as *F. islandicus* (Latham);

\* The numbers attached to species refer to my original list ('Ibis,' Nos. 12 and 13).

while Mr. Murray has recorded *F. candicans* (Gmelin) from the same locality. On the Saskatchewan this bird, or rather one of these birds, is rare, for I have only three or four recorded instances of having seen any individuals of the Falcon family during winter. It is known to the Indians and half-breeds of the interior as "the Hawk that winters." Some specimens which have lately come from Hudson's Bay differ considerably, the largest measuring  $16\frac{1}{2}$  inches in the wing. Mr. J. H. Gurney has decided that they are of two species, *F. islandicus* and *F. grænländicus*.

### FALCO SPARVERIUS.

The American Sparrow-Hawk is identified as an inhabitant of the interior by specimens from the forks of the Saskatchewan recorded in the 'Fauna Boreali-Americana,' also one in the museum of the Smithsonian Institution from between Hudson's Bay and Lake Winipeg, and from the Mackenzie by Mr. Bernard Ross. I found it throughout the prairie country, where, in the spring, it comes in the van of the migratory birds, and whence it continues its journey as far as the Arctic Circle. I observed an individual at Red River Settlement on the 22nd of April, in 1859, the day previous to the arrival of the first Goose, while the whole country was yet covered with snow, and the decided spring thaw had not commenced. The year previous, I saw what I took for the Sparrow-Hawk on the 15th of March, at Fort Carlton, while Sir John Richardson observed it, the spring which he spent there, on the 13th.

### 3. ASTUR ATRICAPILLUS.

The Goshawk is found to range throughout the interior from Hudson's Bay to the Rocky Mountains and Mackenzie River. My specimens ('Ibis,' vol. iii. p. 316), collected as far west as the Saskatchewan, do not differ from others from the most eastern part of the continent, Nova Scotia.

4. ACCIPITER COOPERI. Killed at Fort Carlton. (See 'Ibis,' vol. iii. p. 317.)

As *Accipiter mexicanus* has been found on the Upper Missouri, I would draw attention to it as likely to be an inhabitant of the Saskatchewan Plains, between which and the prairie bordering the former river there is no natural line of demarcation.

## 5. ACCIPITER FUSCUS.

Besides inhabiting the Saskatchewan Plains ('Ibis,' vol. iii. p. 317), there are specimens of the Sharp-shinned Hawk in the Smithsonian Institution from Red River Settlement, and from between Hudson's Bay and Lake Winipeg, while Mr. Bernard Ross obtained it on the Mackenzie.

## 6. BUTEO SWAINSONII.

This bird, of which I have recorded several examples from the Saskatchewan in my first paper ('Ibis,' vol. iii. p. 317), is figured in the 'Fauna Bor.-Am.' as *Buteo vulgaris*. Mr. Bernard Ross found it more rare to the northward, in the Mackenzie River district.

## 7. BUTEO BOREALIS.

Besides my record of the Red-tailed Buzzard ('Ibis,' vol. iii. p. 318), I find that it is mentioned in the 'Fauna Bor.-Am.' as having been shot also on Hudson's Bay.

*Buteo bairdii*, from the localities in which it has already been found, as well as *B. montanus* (the Western Red-tail) (which I find Mr. Ross has obtained, but I am not aware of the locality), may be looked for on the plains west of Lake Winipeg; but *B. lineatus* appears to be an eastern bird.

## BUTEO PENNSYLVANICUS.

A specimen from the southern extremity of Hudson's Bay, on the authority of the 'Fauna Bor.-Am.,' brings the Broad-winged Hawk within the limits of this paper, but it appears properly to belong to the eastern side of the continent.

8. *Archibuteo lagopus*.

I here introduce this bird because it stands recorded as an inhabitant of the "interior of British North America," on the authority of a specimen killed by Mr. Drummond on the eastern slope of the Rocky Mountains, in latitude 55° ('Fauna Bor.-Am.' pl. 28), and is given by Mr. Ross as common on the Mackenzie. I have also seen specimens in the plumage of the figure above mentioned from Hudson's Bay, and frequently observed others in a wild state, though I never procured a specimen. Moreover, Professor Baird feels assured of its existence, and

remarks that its identity with the European bird is most perfect in specimens from western North America. I have, however, only recorded it in *italics*, because Mr. John H. Gurney (whom no one in this country can equal as a referee on raptorial birds) considers that *A. lagopus* does not range to America; the patches of colouring on American birds being invariably larger, and the lightest individuals darker than the darkest European examples. He leans to the opinion that the American bird is the young of *A. sancti-johannis*, next to be noted.

#### 9. ARCHIBUTEO SANCTI-JOHAANNIS.

In my first paper a specimen and eggs are mentioned from the western plains ('Ibis,' vol. iii. p. 318), where the Black Hawk is not an uncommon bird. I find also that Mr. Andrew Murray, in his paper entitled "Contributions to the Natural History of the Hudson's Bay Company's Territories," in the 'Edin. New Phil. Journ.' for April 1859, has also recorded specimens from Hudson's Bay and the country lying between its western shore and Lake Winipeg. Mr. Ross gives it on the Mackenzie as rare, which is the most western locality assigned to the species. The supposed *A. lagopus* has, however, been obtained in California and Washington Territory, but those localities, although on the Pacific side of the Rocky Mountain range, are not further west in longitude than Mackenzie River; still it is curious that Professor Baird has received no specimens of *A. sancti-johannis*, if it is the adult of the other, from the Pacific States.

#### 10. ARCHIBUTEO FERRUGINEUS. (See 'Ibis,' vol. iii. p. 318.)

Although my observations on the American *Falconidæ* have been but few, I am obliged a second time to call in question the veracity of the 1st Part of Dr. Brewer's 'Oology.' I refer to the case of the "California Squirrel-Hawk," or "Western Rough-legged Buzzard," the supposed egg of which he has figured from a specimen said to have been obtained by Dr. Heermann in California. There has evidently been some mistake about it; for, as stated in my first paper ('Ibis,' No. 12), I took two nests of this bird on the Saskatchewan prairies, from one of which I shot a female bird, now in the collection of the Royal Artillery

Institution at Woolwich ; so that there can be no doubt of the identity of my eggs. Now Dr. Brewer figures this Buzzard's egg (N. A. O. pl. 3. fig. 26) as being "of a yellowish white," "marked with large blotches of a light, but very distinct, purplish grey," and measuring " $2\frac{3}{32}$  by  $1\frac{11}{16}$  inches,"—whereas my eggs present very much more the appearance of the eggs of the Common Buzzard, and exhibit similar variations. One of them is white, with large distinct blotches and smaller specks of two shades of brown ; another is more obscurely blotched with paler brown, and at the same time freckled nearly all over. They measure—

Spec. *a.* 2·6 by 2·0 inches,

Spec. *b.* 2·5 by 1·95 inches,

being thus considerably larger than is represented by Dr. Brewer, besides being quite differently coloured. Mr. Bernard Ross seems doubtful about this bird on the Mackenzie.

11. *CIRCUS HUDSONIUS*. (See 'Ibis,' vol. iii. p. 319.)

Also common on the Mackenzie (Bernard Ross).

12. *AQUILA CANADENSIS*. (See 'Ibis,' vol. iii. p. 319.)

Also Mackenzie River, to the Arctic Coast (Bernard Ross).

13. *HALIAËTUS LEUCOCEPHALUS*. (See 'Ibis,' vol. iii. p. 319.)

Also Mackenzie River, to the Arctic Coast (Bernard Ross).

14. *PANDION CAROLINENSIS*. (See 'Ibis,' vol. iii. p. 320.)

Also Mackenzie River, to the Arctic Coast (Bernard Ross).

15. *BUBO VIRGINIANUS*. 16. *Bubo arcticus*.

In my first paper ('Ibis,' vol. iii. p. 320) the light-coloured variety of the Great Horned Owl was placed as a distinct species from *B. virginianus*. I am, however, very doubtful of the correctness of this view, and consequently would prefer keeping it under the original name ; otherwise we shall have to allow at least three species, all differing from the type. Professor Baird, of the Smithsonian Institution, whose complete ornithology of North America has been published as a volume of the 'Pacific Railroad Reports' by order of the United States Government, has had perhaps greater facilities for examining into this subject than any one else ; he thus sums up (p. 50):—"We have, therefore,



to regard them all as *B. virginianus*, and to attribute the differences in their colours to variety only, either local or caused by accidental circumstances. With but a single well-characterized specimen of each of the four varieties, the inducement would be strong to regard them as distinct species, so different are their colours; but with an extended series (thirty specimens) like the present, all the characters exist in such various degrees of modification, and are so blended, that it is to us quite impossible." The two specimens obtained by myself, which differed very considerably in colour, were taken at Fort Carlton, on the north branch, near the forks of the Saskatchewan River, at which lone habitation I spent my first winter (1857-58) in the Indian country. The dark-coloured one was trapped during mid-winter by one of the half-breed Hudson's Bay Company's men, in a snare set in the woods for rabbits, or, as I should properly call them, hares (*Lepus americanus*). The second was not so easily caught. It was near the end of March, on a stormy day, that I trudged along the side of a narrow wooded ravine, which, opening from the river valley near the fort, runs some distance back into the plain, the general level of which is about 200 feet above the river. I was on my usual ornithological walk, which it was my custom to take daily, in the afternoon, after my share of the labours of magnetical observations was over. As I proceeded, I started a large light-coloured Owl, but having the buffalo-leather cover on my fowling-piece, as is the usual custom of the Indian country, I was not ready for him when he rose. He alighted near the head of the ravine, and I followed; but, before getting within shot, he started again. From this point a continuous line of clumps of aspens and willows, with clear spaces between them, stretch out on the prairie. Many a long chase have Owls led me at different times, but I think this was one of the longest. As I advanced, Mr. Arcticus (if we may so call him) continually shifted his position further and further along the line of clumps, so that I found it impossible to get within two or three gun-shots of him. At one moment I lost the run of him altogether, and was nearly abandoning the chase, when I again espied my friend; but again he changed his position, and dived somewhere into the middle of large-sized coppice. I now bethought

me of, and at once adopted, a *ruse de guerre*, and by making a considerable circuit I entered the clump on the far side. It happened to be only thick in places, and the deciduous trees being at that season, of course, devoid of leaves, I walked tolerably easily, keeping a good look-out. I had a pointer-dog with me, which I allowed to beat the ground, thinking perhaps he might attract the attention of the Owl from me; and I was already so angry with the length of the chase that I determined to blaze even if he rose a hundred yards from me. But to the point at once: as I steadily made my way through the little wood, up started friend "Arcticus," as unexpectedly as a snipe, among the tops of the small aspens. My gun rose to my shoulder as quickly as if I had been on a bog in the "auld country," and down dropped the quarry to a touch of No. 3 shot at thirty-two yards. I need hardly say how delighted I was as I trudged homeward to the fort, with a fine but very light-coloured specimen of the Great Horned Owl tied by my pocket-handkerchief to the barrel of the gun over my shoulder. On a post-mortem examination made at the inquest, the doctors agreed (for once) as to the cause of death: but a jury of very eminent men divided as to the identity of the deceased; for friends on two sides appeared, the one party claiming him as a true *Bubo virginianus*, while others contend (for the contest is not yet ended) that his Christian name should be "Arcticus." The case has been referred to the Chancery Court, whence it is hoped that the ward will some day be extricated. The final decision will be of importance to the progress of ornithology, as it will define the limit to which we may go in varieties—local, accidental, or, if we may so term them, permanent. In the meantime I shall assume that the Great Horned Owls of North America are all *B. virginianus*. "Am I right—or any other man?" The Great Horned Owl appears to be a common inhabitant of the interior of North America, from Hudson's Bay to the Rocky Mountains, and north to the Arctic Circle—in fact, the whole of North America.

#### OTUS WILSONIANUS.

The Long-eared Owl, an inhabitant of the whole of temperate North America, is given in the 'Fauna Bor.-Am.' up to 60° N. latitude, while a specimen has been supplied to the Smithsonian

Institution, from Red River Settlement, by Mr. Donald Gunn, an influential settler in that isolated colony; and Mr. Bernard Ross has found it on the Mackenzie.

BRACHYOTUS CASSINII.

The 'Fauna Bor.-Am.' also gives the Short-eared Owl in the fur-countries, up to 67° north. Mr. Murray notes a specimen from the woody district between Hudson's Bay and Lake Winnipeg; I have seen it from the coast of Hudson's Bay, and Mr. Bernard Ross gives it from Mackenzie River.

SYRNIUM CINEREUM.

The Great Grey Owl, a northern species, is identified as belonging to the interior of British North America by a specimen in the collection of the Smithsonian Institution, from Red River Settlement; one mentioned in the 'Fauna Bor.-Am.,' from Great Bear Lake; and two which I received from the Rev. J. P. Gardiner, a missionary resident at York Factory, Hudson's Bay.

SYRNIUM NEBULOSUM.

The Barred Owl, an Eastern American bird, was described by Forster from a specimen from Hudson's Bay; it is recorded also as having been lately found in California.

NYCTALE RICHARDSONI.

This species, the Sparrow-Owl, was figured and described under the name of *Strix tengmalmi* in the 'Fauna Bor.-Am.,' from the forks of the Saskatchewan. It has been found breeding on the Mackenzie by Mr. Ross.

*N. albifrons*, from the localities in which it has been taken, will possibly be found in the region treated of in this paper; as well as *Athene hypogæa*, of which a specimen has been obtained at Fort Benton, on the Upper Missouri. I have inserted these names only to draw the attention of naturalists who may at a future time more fully explore the little-known (in an ornithological sense) British Indian territory lying to the west of Canada.

17. NYCTEA NIVEA.

The Common Snowy Owl ('Ibis,' vol. iii. p. 320) is known to the fur-traders and voyageurs of the North by its partiality for

Willow-grouse and American hares—the “white partridges” and “rabbits” of their parlance; and its audacity is such, that it was related to me by a chief factor of the Hudson’s Bay Company’s service, that he knew of an instance of one carrying off a wounded bird from the haversack of a hunter; its wing, having been sticking out and fluttering, attracted the Owl’s attention. I observed the Snowy Owl in the neighbourhood of the forks of the Saskatchewan as early as the 3rd of November. Mr. Ross has found it breeding on the Mackenzie.

18. *SURNIA ULULA*.

The Hawk-Owl (‘Ibis,’ vol. iii. p. 320) is the most common Owl of the interior, up to the Arctic Coast; it is resident all the winter through on the Saskatchewan, and extends thence to Hudson’s Bay. It is the same bird that inhabits Northern Europe; but I have not heard that it has yet been met with by any ornithologist to the west of the Rocky Mountains.

Order II. SCANSORES.

I cannot find that any Cuckoo has been observed in the western Indian country north of 49°; but two species are known to inhabit the Missouri Plains.

19. *PICUS VILLOSUS*.

The Hairy Woodpecker, or its varieties, extends as far as 63° N. lat. My two specimens (‘Ibis,’ vol. iv. p. 3) are of the larger variety, and were obtained during winter. I have seen as many as six holes, one above another, in an old burnt tree, the nesting-places of this bird.

20. *PICUS PUBESCENS*.

This and the preceding species are frequently to be met with in company, as in the eastern part of the continent; and while the larger bird searches a good-sized poplar-tree in quest of its insect prey, the smaller is as actively engaged within a few feet on a dead or dying alder-bush. Besides my specimens (‘Ibis,’ vol. iv. p. 3), both these birds are noted by Mr. Bernard Ross on the Mackenzie.

*PICOIDES ARCTICUS*.

The Black-backed Three-toed Woodpecker, besides being given

in the 'Fauna Bor.-Am.' as an inhabitant of the Rocky Mountains, is identified from the neighbourhood of Red River Settlement by specimens procured by Mr. Donald Gunn, now in the collection of the Smithsonian Institution, and by Mr. Bernard Ross on the Mackenzie. I observed what I took for this species on several occasions, and, in fact, shot a specimen on the western slope of the Rocky Mountains, but at the time I had no opportunity of preserving it.

PICOIDES HIRSUTUS.

The Banded Three-toed Woodpecker is here inserted on the authority of the 'Fauna Bor.-Am.' and Mr. Bernard Ross as an inhabitant of the central and northern regions, and on that of Mr. Murray of the shores of Hudson's Bay.

Mr. Bernard Ross considers that he has obtained a specimen of *Picoides dorsalis* on the Mackenzie, where it winters.

21. SPHYROPICUS VARIUS.

Besides having been found on the Saskatchewan, whence my specimen ('Ibis,' vol. iv. p. 3) was obtained, both Sir John Richardson and Mr. Bernard Ross record the Yellow-bellied Woodpecker on the Mackenzie.

22. HYLOTOMUS PILEATUS.

This fine bird is highly esteemed among the Indians of the Hudson's Bay Company's territory as medicine. It must not, however, be considered that "medicine" means physic; it should more properly be understood as "charm." So greatly do these people value the bird in this way, that they skin it and stuff it, hanging it to the poles of the wigwam when any inmate is labouring under indisposition; and they cannot be induced to part with it under any circumstances. Before I succeeded in obtaining a specimen myself ('Ibis,' vol. iv. p. 3), a Cree Indian, who was camping near Fort Carlton for a few days in January 1858, brought one stuffed in the manner above noticed to show me, because he had heard that I was "curious about birds." It had been shot at a place called Sturgeon Lake, about sixty miles to the north of the fort—the last fall, and had been presented to him as medicine for his wife, who had stuffed it with moss; and, to do the old squaw credit, I must say that the



head was remarkably well done, retaining in perfection all the features of life. He would not give it me, as it was a great charm, being hung up in the lodge always when "medicine was being made" (which medicine-making consists in a great amount of singing, drumming, and certain mysterious operations) for the benefit of his wife, who had been injured many years before when dressing a buffalo-robe, and had never entirely recovered from the accident. The Indian's name was "Ousa-wanaskie" (the Yellow Otter). He was very chary of the specimen, and it was only with great difficulty that I could induce him to lend it me while I made a coloured drawing of its head, as I was then doubtful whether I should meet with another. When done, however, he was much delighted with the drawing, and took it to show to his wife and family, whom it was very amusing to watch as they compared the original and the representation. This they deemed highly satisfactory, and it served me very well in lieu of a preserved skin. The Pileated Woodpecker has not been obtained from the neighbourhood of Hudson's Bay, and on the Mackenzie is noted as rare. It is known to the inland Cree Indians as "Ma-maou."

### 23. MELANERPES TORQUATUS.

Lewis's Woodpecker, being a western bird, had not been found in British territory before my specimen noted in a former paper in 'The Ibis' (vol. iv. p. 3). The locality was on Bow River, at the eastern base of the Rocky Mountains; but I am unable to add any particulars concerning the species, having only obtained that one specimen. *Melanerpes erythrocephalus* of the 'Fauna Bor.-Am.' has been found on the Upper Missouri, but I did not meet with it.

### 24. COLAPTES AURATUS.

Besides the specimen noted in my original paper ('Ibis,' vol. iv. p. 3), from Hudson's Bay, others have been presented to the Smithsonian Institution, from Red River Settlement, and Nelson River between Hudson's Bay and Lake Winipeg, while it is given by Mr. Bernard Ross as common as far north on the Mackenzie as the Arctic Circle. The Yellow-winged Woodpecker is among the earliest arrivals from the south, whence it comes in large

bands; and nothing astonished me more than the immense number of these birds which were migrating northwards, favoured by a southerly breeze, at Red River Settlement, on the 26th of April, 1859. This was also the date that the first was seen at Fort Carlton on the Saskatchewan the previous year. By cutting down a hollow tree near Fort Carlton, I obtained the eggs; they were nine in number, perfectly white of course, and laid in finely chopped dry decayed wood.

25. *Colaptes mexicanus*.

*Colaptes hybridus*.

Being at the time ignorant of the existence of more than one species of this genus, I did not take any particular trouble to collect specimens in the interior of the continent, and consequently I am now in doubt of what species were numbers of "Flickers" which I observed in large congregations on either slope of the Rocky Mountains in the autumn of 1858. M. Bourgeau, the indefatigable botanical collector of Captain Paliser's Exploring Expedition, obtained one specimen on the Saskatchewan Plains; but whether it was *C. mexicanus* of Swainson, or the hybrid bird which is so plentiful on the upper waters of the Missouri, I was not able to determine, as I had not an opportunity of examining the specimen after my return to England.

### Order III. INSESSORES.

TROCHILUS, sp.

There seems to be some doubt as to which of three species, *colubris*, *rufus*, or *platycercus*, inhabits the northern interior of the American continent. On the authority of the 'Fauna Bor.-Am.,' Humming-birds are found to range up to 57° N. lat. They are known about the gardens of the inhabitants of Red River Settlement, while I observed certain birds of this family both at the eastern base of the Rocky Mountains and in the valley of the head waters of the Flathead River, which lies between the eastern and western ranges of the chain, where I crossed it a few miles north of American territory. All I can say about them is that the general colour was brown, with a light throat.

*Antrostomus vociferus.*

Although it may seem presumptuous to include in a local fauna a bird which has not been seen, yet the note of the Whip-poor-will is so distinct and unmistakeable that I think we may reasonably include it among the birds of the interior of the British possessions in North America, from the fact of its voice being known at the Red River Settlement, in lat. 50° N., where I have frequently heard it spoken of. Mr. Donald Gunn of that place, who has contributed considerably to our knowledge of the natural history and climate of the Hudson's Bay Territories, informed me that he heard the voice of the Whip-poor-will on the 2nd of May, 1856; I was also told that a chance one or two had been heard on the Saskatchewan. Moreover, I myself heard this bird when camped, on the night of the 4th of May, 1859, on the banks of Red Lake River, in the northern part of the State of Minnesota. Its early arrival in that latitude would indicate it as a northern bird; but Dr. Richardson does not mention having noticed it west of Lake Huron; while I never heard its peculiar note during my eighteen months' travelling to the north of the United States. *A. nuttalli* may perhaps take its place in the west.

26. *CHORDEILES HENRYI.*

Whether this is the species (for the distinctions are but slight) which is given by Dr. Richardson as a visitor to the most remote Arctic lands, only the re-examination of his specimens can prove. M. Bourgeau's and my own, from the Saskatchewan, have been made out to be the Western Night-Hawk, as yet not found in the eastern part of the continent. Specimen No. 132 ('Ibis,' vol. iv. p. 3), a male, measured  $9\frac{1}{2}$  inches in length, and  $7\frac{5}{8}$  in the wing. The feet were of a dark purple-flesh, marked with white; the bill dark brown; and the iris of the eye, which was small, also brown. Its stomach contained the remains of insects. M. Bourgeau's specimen, obtained on the prairie between the north and south branches of the Saskatchewan, on the 27th of June, measured in the wing  $8\frac{3}{8}$  in. Three eggs, which he obtained at the same time, were of a light olive, blotched with black more thickly at one end than the other. No nest was constructed;

but the eggs lay where an old patch of buffalo-dung (which is deposited similar to cow-dung in the fields of England) had been turned over, and the ground for that space (say a circle of 15 to 18 inches diameter) was consequently bare of grass. Dr. T. M. Brewer, in the 1st Part of his 'North American Oology,' notices the great diversity of colouring in the eggs of the allied species *C. virginianus* or *popeue*; and therefore I am not astonished at the difference of M. Bourgeau's specimens from those figured in Dr. Brewer's plate. He, however, states that the number of eggs is limited to two; and therefore I wonder how it is that another species so closely allied has been found with three. Let us charitably hope that the Common Night-Hawk is sometimes blessed with more than twins; or, if not, we may advise her to try a trip to the high western plains, where the invigorating air of the trackless prairies may benefit her constitution. I am sorry that the whereabouts of M. Bourgeau's collection is uncertain, or I might have brought the eggs of *C. henryi* forward as a novelty. With regard to the habits of the Western Night-Hawk, I may observe that the first time I noticed it at Fort Carlton, near the forks of the Saskatchewan, was on the 2nd of June, when I shot one. On the same day I saw large congregations about the river valley, in one of which there must have been from 80 to 100 individuals; and as, previous to this, I was out every day with my gun in search of birds, and did not notice any, I concluded they were on their spring migration. Dr. Richardson, however, mentions the Night-Hawk (*C. virginianus*?) at Great Bear Lake, some 800 miles further north, on the last day of May. It was numerous at Fort Pitt, on the Saskatchewan River, at the end of June; and I found it on the eastern base of the Rocky Mountains in August. As another proof to add to those already known as to the misnaming of this bird *Night-Hawk*, I may mention that at a small inland lake on the buffalo plains I once saw half a dozen of them hawking about in company with a number of Terns (*Hydrochelidon plumbea*) in bright sunlight. I see that Mr. A. Murray has called a specimen from near Hudson's Bay *C. virginianus*; and Mr. Bernard Ross says that *C. popeue* ranges as far north on the Mackenzie as the Arctic Circle. Both species *may* inhabit the interior, but I should be inclined to think that western specimens were *C. henryi*.



## 27. CERYLE ALCYON.

Besides the specimen from the Rocky Mountains already noted ('Ibis,' vol. iv. p. 3), I obtained a second from my friend Mr. J. C. Clare, at York Factory, on Hudson's Bay; there are others also, in the Smithsonian Institution, from between that place and Lake Winipeg, and also from Red River Settlement. Dr. Richardson and Mr. Bernard Ross have noted the Belted Kingfisher up to 67° N. lat., while I have observed the bird the whole distance across the interior, from Hudson's Bay to the western base of the Rocky Mountains. It remained, in 1857, on the lower part of the Saskatchewan River till the 7th of October; and I observed it in 1859 at Pembina, where the 49th parallel crosses the Red River of the north, on the 1st of May. The river then had not opened, although there was considerable water on the surface of the ice, and we crossed over with horses and carts. This is not much in favour of the climate of the interior, but it must not be thought that the season is always as late as in this instance.

## 28. TYRANNUS CAROLINENSIS.

Besides a specimen recorded from Fort Carlton in the 'Fauna Bor.-Am.,' and my own from the same locality ('Ibis,' vol. iv. p. 3), Mr. Bernard Ross notices the King Bird on Mackenzie River.

## 29. SAYORNIS SAYUS.

Two specimens of Say's Flycatcher are recorded in the 'Fauna Bor.-Am.' from Fort Carlton, where mine ('Ibis,' vol. iv. p. 4) was procured. Mr. Bernard Ross gives it as rare on the Mackenzie. *S. fuscus* is also given by Mr. Ross; but I should think such a western range doubtful.

## CONTOPUS BOREALIS.

The Olive-sided Flycatcher, described by Swainson in the 'Fauna Bor.-Am.,' from a specimen killed on the Lower Saskatchewan, has been since obtained on Hudson's Bay, as recorded by Mr. Murray, and on the Mackenzie by Mr. Ross.

## CONTOPUS RICHARDSONII.

The occurrence of this species in the interior rests on a specimen described in the 'Fauna Bor.-Am.,' from the same locality as the last.



## CONTOPUS VIRENS.

The Wood-Pewee is given by Richardson in the Appendix to Back's 'Voyage.' There is also a specimen from Northern Minnesota in the collection of the Smithsonian Institution.

## 30. EMPIDONAX PUSILLUS.

Besides my specimen killed at Fort Carlton, on the Saskatchewan ('Ibis,' vol. iv. p. 4), the 'Fauna Bor.-Am.' records one from the same place, and Mr. Bernard Ross notices it on the Mackenzie.

## EMPIDONAX TRAILLII.

## EMPIDONAX MINIMUS.

Both these Flycatchers are given by Mr. Bernard Ross as summer visitors to the Mackenzie River, the latter the more common.

Of the Thrushes, *Turdus pallasii* (the Hermit Thrush) stands first in order; but its occurrence in the interior is at present uncertain, as Mr. Ross is doubtful concerning a specimen collected by him on Mackenzie River. In the 'Fauna Bor.-Am.' there has been a jumble about the Thrushes: Professor Baird considers the description of *Merula wilsonii*, and the figures of *M. solitaria* (pl. 35) and *M. minor* (pl. 36), of that work, to belong to *Turdus swainsonii* (Cab.); while the description only of *M. solitaria*, given as from Lake Huron, refers to *T. pallasii*, the true Hermit Thrush.

## TURDUS FUSCESCENS.

A specimen from the Lower Saskatchewan, mentioned in the 'Fauna Bor.-Am.' as *Merula minor*, and another from Red River Settlement, in the Smithsonian Institution, place Wilson's Thrush as an inhabitant of the region treated of in this paper; but, for my own part, I did not obtain a specimen.

## 31. TURDUS SWAINSONII.

On account of the confusion which existed between the three species, *T. fuscescens*, *T. ustulatus*, and the present one, my specimen ('Ibis,' vol. iv. p. 4) was carefully compared with a typical one given me by Professor Baird. I shot another at the same time at Fort Carlton, which, being a male (the sex of No. 99 could not be distinguished on account of the penetration of the shot),

corresponded in colour and markings ; they measured respectively in length  $6\frac{1}{2}$  and  $6\frac{7}{8}$  inches, and the wings 4 and  $4\frac{1}{4}$  inches. The eyes were brown ; feet brownish flesh ; bills dark horn-colour, except the base of the lower mandible, which was flesh ; the inside of their mouths yellow ; and the second and third quill-feathers the longest. On the 5th of June, in the same locality, I obtained another Thrush, a female by dissection ; the bill of the same colour as those mentioned above ; feet dull flesh ; length  $7\frac{1}{2}$  inches, wing 4 inches, tarsus  $1\frac{1}{8}$  inch. It was so much damaged that I did not preserve it, hoping to get another. The whole upper parts, including the tail, were of a uniform reddish olive ; its identity must remain doubtful. *T. swainsonii* is given by Mr. Bernard Ross on Mackenzie River north to the Arctic Circle. *T. aliciae* has also been found by Mr. Ross in the north on the Yukon River, to the west of the Rocky Mountains ; it is, however, a bird of the Mississippi valley.

### 32. TURDUS MIGRATORIUS. (See 'Ibis,' vol. iv. p. 4.)

So widely as the American Robin is distributed on that continent, it is unnecessary for me to note the different localities where it has been found in the northern interior. Dr. Richardson, during his travels, observed that it hatches its young in latitude  $54^{\circ}$  at the end of May, and in  $65^{\circ}$  by June the 11th. Its first occurrence at Fort Franklin, in  $65^{\circ}$ , he notes on May 20th ; at Fort Chepeweyan,  $58\frac{3}{4}^{\circ}$ , May 7th ; and Fort Carlton, April 22nd. In 1858, however, when I was at this last post, the Robin arrived from the south on the 16th of that month ; but there can be no question that in those latitudes which are frozen up for nearly half the year, both the arrivals in spring and the departures in autumn are very much dependent on the progress of the seasons. For instance, in the following year the Robin did not reach Red River Settlement, three degrees further to the southward, before the fourth week in April. In 1858 I observed this bird on the north branch of the Saskatchewan River till the 28th of October. Mr. Ross notices its abundance on the Mackenzie, to the Arctic Circle.

### TURDUS NÆVIUS.

A specimen is mentioned under the name of *Orpheus meruloides*

in the 'Fauna Bor.-Am.,' from Fort Franklin, near the Arctic Circle; while all those enumerated in Professor Baird's Report are from the Pacific side of the Rocky Mountains. This is singular, but only helps to prove the mingling of the fauna, as well as the flora, of the Atlantic and Pacific slopes in the far north, which has been adverted to elsewhere.

#### SIALIA ARCTICA.

As I do not include any portion of Canada in the "interior," I cannot take notice of specimens of the Blue Bird (*S. sialis*) killed on Lake Huron, as recorded in the 'Fauna Bor.-Am.' The western species which heads this note, however, was obtained on Great Bear Lake by Dr. Richardson; while I observed what I took for this bird on both slopes of the Rocky Mountains, when I crossed by the Kootonay Pass, in August 1858.

#### REGULUS CALENDULA.

The Ruby-crowned Wren is mentioned by Mr. Bernard Ross as rare at Great Slave Lake, from whence the Mackenzie runs towards the Arctic Sea. I observed and shot specimens of a *Regulus*, which was not uncommon, on my boat-voyage in September between Hudson's Bay and Lake Winipeg; it associated with the Tits (*Parus atricapillus* et *P. hudsonicus*). I saw it as far as the Grand Rapid, near the embouchure of the Saskatchewan, at the north-west corner of that lake. I also observed a species on Bow River, at the eastern base of the Rocky Mountains. The 'Fauna Bor.-Am.' does not give any species.

#### HYDROBATA MEXICANA.

Specimens were obtained by Mr. Drummond, the botanist, at the head waters of the Athabasca River, and described by Swainson in the 'Fauna Bor.-Am.' as *Cinclus americanus*. It does not seem to be known on the eastern side of the continent. Mr. Lord, who has collected extensively in British Columbia, considers that all may be referred to one species.

#### 33. ANTHUS LUDOVICIANUS.

My two specimens ('Ibis,' vol. iv. p. 4) seem to show that this is *A. aquaticus* of the 'Fauna Bor.-Am.' from the Saskatchewan. I did not find it nearly as plentiful as the following species.

Mr. Murray notes it from Hudson's Bay, and Mr. Bernard Ross from the Mackenzie.

#### 34. *NEOCORYS SPRAGUII*.

The Missouri Skylark, hitherto looked on as a rare bird, is common on the prairies of the Saskatchewan during the breeding-season. The first occasion on which I found it was in the neighbourhood of Fort Carlton, on May 6th. When disturbed from the prairie grass, which is its general haunt, it utters a single chirp, and immediately mounts in the air by a circuitous course, with a very undulating flight, to a great height, where it rests in a peculiar manner on its outstretched wings, and utters a very striking song, which it is difficult to describe, and I can liken to nothing I know. The sound is repeated in a quick succession of notes in the descending scale, each note being lower than the preceding. The bird then usually descends to the ground with great rapidity, almost like a stone, and something similar to a hawk swooping on its prey. These striking manners, if once seen, are not to be forgotten; and I should recognize the note instantly, even if I heard it in the depths of a mangrove-swamp in the tropics. I found it rather difficult of approach, and hard to shoot. How this bird should have been so long overlooked seems marvellous, for I do not know a more common bird on the buffalo plains of the Saskatchewan during summer, and it must consequently be a visitor to the southern prairies. I find also, by my note-books, that I observed it in Northern Minnesota on the 4th of May, 1859. My specimen from Fort Carlton was a male; it measured in length  $6\frac{3}{8}$  inches, the wing  $3\frac{1}{4}$  inches, and bill along the ridge scarcely half an inch; the eye was hazel; feet dull flesh-colour, tinged with yellowish underneath; bill above and at the point dusky, remainder of under mandible flesh. The first four quill-feathers were nearly equal and the longest, the fifth being  $\frac{5}{8}$ ths of an inch shorter; greater coverts tipped with dull white. It differs from *Anthus ludovicianus* principally in the bill, legs, chin, line over the eye, and tail-feathers.

*Mniotilta varia* (the Black-and-white Creeper) and *Oporornis varius* (the Connecticut Warbler) are given as doubtful by Mr. Bernard Ross on the Mackenzie.

## HELMINTHOPHAGA RUFICAPILLA.

A specimen of the Nashville Warbler is noted in the 'Fauna Bor.-Am.' from the Lower Saskatchewan, and by Mr. Ross on Great Slave Lake.

## 35. HELMINTHOPHAGA CELATA.

The Orange-crowned Warbler was obtained by myself, for the first time, on the Saskatchewan ('Ibis,' vol. iv. p. 4); and Mr. Ross gives it, along with the foregoing, as rare on the Mackenzie.

## 36. HELMINTHOPHAGA PEREGRINA.

Two of my specimens ('Ibis,' vol. iv. p. 4) are referred to this species, which is likewise noted in the 'Fauna Bor.-Am.' from the Saskatchewan, and by Mr. Ross from Mackenzie River.

## SEIURUS AUROCAPILLUS.

The 'Fauna Bor.-Am.' notices the Golden-crowned Thrush as breeding on the Lower Saskatchewan.

## 37. SEIURUS NOVEBORACENSIS.

Besides my specimen obtained at Fort Carlton ('Ibis,' vol. iv. p. 4), the Water-Thrush is noted in the 'Fauna Bor.-Am.' as passing that post in May. Mr. Andrew Murray gives it from the southern part of Hudson's Bay, and Mr. Ross as far north on the Mackenzie River as the Arctic Circle.

## DENDRÆCA CORONATA.

The Yellow-rumped Warbler is given in the 'Fauna Bor.-Am.' as resident during the summer on the Lower Saskatchewan, and I observed this bird near Fort Carlton, above the forks; Mr. Ross also mentions it on the Mackenzie, nearly to its mouth.

## 38. DENDRÆCA STRIATA.

Besides a specimen of mine ('Ibis,' vol. iv. p. 4) killed at Fort Carlton, the 'Fauna Bor.-Am.' notices it on the Lower Saskatchewan; Mr. Murray gives it from Hudson's Bay, and Mr. Ross as a common bird on the Mackenzie.

## DENDRÆCA BLACKBURNIÆ.

This species is given, on the authority of Mr. Murray, from Severn House, on Hudson's Bay, and Trout Lake, under the name of *D. parus*.



39. *DENDRÆCA ÆSTIVA*.

A specimen from Fort Carlton ('Ibis,' vol. iv. p. 4), and my having observed it from near Hudson's Bay, all the way to the eastern base of the Rocky Mountains, denote the Yellow Warbler as widely distributed throughout the interior; while Dr. Richardson and Mr. Ross have recorded its abundance to the Arctic Circle; and Mr. Murray gives it from localities on Hudson's Bay. Its showy plumage, attracting attention, has caused the Indians to give it a special name. The Crees of the Saskatchewan call it "Ousawoo-peeasees" (the Yellow Bird).

*DENDRÆCA MACULOSA*.

The Black-and-yellow Warbler rests on the authority of the 'Fauna Bor.-Am.' as a bird of the Saskatchewan; for I did not obtain a specimen, but only saw what I took for the bird, and hailed it as an old acquaintance of Nova Scotia. It has been found on the Mackenzie by Mr. Bernard Ross.

*DENDRÆCA PALMARUM*.

A single specimen, from the Lower Saskatchewan, is mentioned in the 'Fauna Bor.-Am.' under the name of *Sylvicola petechia*. Mr. R. Kennicott has supplied the Smithsonian Institution from Red River Settlement; and Mr. Ross notes it as rare at Great Slave Lake.

*MYIODIOCTES PUSILLUS*.

Rare on the Mackenzie (Mr. Bernard Ross).

*MYIODIOCTES CANADENSIS*.

A single specimen is recorded in the 'Fauna Bor.-Am.,' taken to be of this species, from the Lower Saskatchewan.

40. *SETOPHAGA RUTICILLA*.

Besides my specimen ('Ibis,' vol. iv. p. 4) from the Saskatchewan, this bird is noted in the 'Fauna Bor.-Am.,' and given by Mr. Bernard Ross as reaching the Arctic Circle, on the Mackenzie.

*HIRUNDO HORREORUM*.

The Barn Swallow, on the authority of the 'Fauna Bor.-Am.,' builds within the Arctic Circle in May, and leaves early in August. It is mentioned by Mr. Ross as rare at Great Slave Lake.

## HIRUNDO LUNIFRONS.

The Cliff Swallow is also given in the 'Fauna Bor.-Am.' and by Mr. Ross on the Mackenzie; and I observed it in considerable numbers under the eaves of the buildings at Fort Pitt, on the north branch of the Saskatchewan, in June. While travelling over the prairie in the neighbourhood of Bow River, our party came upon an immense granite-boulder, about 25 feet high, standing alone on the plain. This had been taken advantage of by the Cliff Swallow, the mud-formed nests of which were clustered together in a mass. The steep cliffy banks of some parts of the Saskatchewan River are also used by this bird for nesting-places.

## 41. HIRUNDO BICOLOR.

My specimen ('Ibis,' vol. iv. p. 4) was, I believe, the first recorded from the interior, as it is only mentioned as having been observed in the 'Fauna Bor.-Am.' Since that, however, Mr. Ross has observed it on the Mackenzie, as far north as the Arctic Circle. In 1858 the White-bellied Swallow was first seen by myself at Fort Carlton, on the 23rd of April; but I was told of Swallows on the 21st. They were numerous early in May; and on the 17th I found a great number of them congregated about a small lake or pond entirely surrounded by old woods and willows, with its edge margined with long grass. After a time the whole congregation alighted on a couple of dead willow-bushes, about eight feet from the ground. Approaching within shot, I poured among the thickest lot my usual half-charge of small shot and powder, which brought a number to the ground. I picked up eight; but, on account of the length of the grass, I have no doubt I missed finding several. They alighted again in the same manner twice, before I quitted the place. I skinned one, and measured the whole; they ranged between  $5\frac{1}{2}$  and  $5\frac{7}{8}$  inches in length, and from  $4\frac{1}{4}$  to 5 inches in the wing. I found these birds common on the Saskatchewan during the whole summer, and at the eastern base of the Rocky Mountains, near the international boundary, on the 7th of September.

## 42. COTYLE, sp. ?

The specimen and eggs obtained by M. Bourgeau ('Ibis,' vol. iv.

p. 4) were taken by me to belong to *C. riparia*; but as I find there is another species (*C. serripennis*) which might be mistaken for it, I must leave the matter doubtful. Whichever of these two species it may be, it breeds in large numbers along the alluvial banks of the Saskatchewan River, where the holes may be seen frequently in horizontal lines, caused by the birds preferring to bore in the softest of the lines of strata in the cliffs. They select situations from 10 to 150 feet above the river; and the Cliff Swallow (*Hirundo lunifrons*) frequently constructs its mud-nests in the same bank. No specimen is recorded in the 'Fauna Bor.-Am.;' but Mr. Bernard Ross gives *C. riparia* abundant as far north as the Arctic Sea.

#### 43. PROGNE PURPUREA.

No specimen is recorded in the 'Fauna Bor.-Am.,' although the bird is noted; so that on mine, from the Saskatchewan ('Ibis,' vol. iv. p. 4), rests the undoubted occurrence of the Purple Martin to the west of Canada and north of the United States.

#### AMPELIS GARRULUS.

The European Wax-wing was obtained by both Mr. Drummond and Sir John Richardson, as recorded in the 'Fauna Bor.-Am.,' in the Mackenzie River district; and specimens and eggs have since been collected in that locality by Mr. Bernard Ross and Mr. R. Kennicott. A specimen was shot in February, which stamps it as a much more northern bird than the following species.

#### AMPELIS CEDRORUM.

The 'Fauna Bor.-Am.' records a specimen of this species killed on the south branch of the Saskatchewan. The "Wax-wing" is also known to the inhabitants of Red River Settlement. On the 25th of August, while travelling at the western base of the Rocky Mountains, near the Kootenay River, in latitude 49°, I saw a number of Cedar Birds, of which I killed a couple: one proved to be a male in the young plumage; it was 6½ in. long, and 3¾ in. in the wing, which seems to prove its being *A. cedrorum*. Their stomachs were filled with a delicious berry, called by the Cree Indians and half-breeds the "Saskatoon."

#### 44. COLLYRIO BOREALIS.

It will be seen by the date of one of my specimens ('Ibis,'

vol. iv. p. 5) that this Shrike is a winter bird on the Saskatchewan. Mr. Murray also notices it from Hudson's Bay, and Mr. Ross on the Mackenzie. A figure of a female is given in the 'Fauna Bor.-Am.'

#### 45. COLLYRIO EXCUBITOROIDES.

The White-rumped Shrike is only a summer visitor to the north. Sir John Richardson considers that it does not go further north than  $54^{\circ}$ , and that only in the western plains. Mr. Ross, however, has found a Shrike in the Mackenzie River, which he records, with a mark of doubt, as being *C. ludovicianus*. The specimen given in the 'Fauna Bor.-Am.' was from Fort Carlton,—the same locality as mine ('Ibis,' vol. iv. p. 5), which was a female,—obtained, with a nest of seven eggs, by M. Bourgeau. The nest was in a willow-bush, about five feet from the ground, made of *Artemisia* and fine grass, which exactly agrees with Mr. Drummond's observations.

*Collyrio elegans* is given in the 'Fauna Bor.-Am.,' from a specimen presented to the British Museum, from some part of the fur-countries: no particulars are known.

#### 46. VIREO OLIVACEUS. \*

Besides my specimen ('Ibis,' vol. iv. p. 5), the 'Fauna Bor.-Am.' records one from the Lower Saskatchewan, and Mr. Ross from the Mackenzie.

#### 47. VIREO GILVUS.

My specimen of the Warbling Vireo killed on the Saskatchewan ('Ibis,' vol. iv. p. 5) was the only one I knew of from the interior, until I found that Mr. Ross had obtained it on the Mackenzie.

*V. bartramii* of Swainson, considered by Prof. Baird to be *virescens* (Vieill.), is given in the 'Fauna Bor.-Am.,' but only from the Columbia, and therefore cannot be included in this list.

#### 48. MIMUS CAROLINENSIS. (See 'Ibis,' vol. iv. p. 5.)

I noticed that this bird differed from Wilson's description in the top of the head being dark brown, and the colour of the feet (when fresh) purple-brown; also in being difficult of approach—in fact, a shy bird. A specimen is also given in the 'Fauna Bor.-Am.,' from Fort Carlton, on the Saskatchewan.

49. *HARPORHYNCHUS RUFUS*.

The 'Fauna Bor.-Am.' records a specimen of the Brown Thrush from Fort Carlton, besides my own ('Ibis,' vol. iv. p. 5).

50. *CISTOTHORUS PALUSTRIS*.

The Long-billed Marsh Wren, besides being obtained by myself near Fort Carlton ('Ibis,' vol. iv. p. 5), was procured by Mr. Drummond on the eastern declivity of the Rocky Mountains, in latitude 55°. The time of its arrival and departure in Pennsylvania, mentioned by Wilson, and a few differences in colouring from that given by the same author, led me to suppose at the time that my specimen might be of a more northern and, perhaps, western species. However, all the specimens here referred to have passed through the hands of Dr. Selater, than whom I suppose there is not a better authority on American birds in this country.

51. *TROGLODYTES PARKMANI*.

My specimen ('Ibis,' vol. iv. p. 5) has been referred to this species. May not also that mentioned in the 'Fauna Bor.-Am.' as *T. ædon*, from the Rocky Mountains, in lat. 55° N., be the same?

With respect to other Wrens, it is not unlikely that *T. hyemalis* may be found in the interior, though the 'Fauna Bor.-Am.' does not mention it beyond Lake Huron. The Rock Wren (*Salpinctes obsoletus*) has been obtained on the high central plains in American territory, as far north as Fort Union on the Upper Missouri; it may consequently be looked for on the British prairies.

52. *SITTA CANADENSIS*.

Besides inhabiting the Saskatchewan ('Ibis,' vol. iv. p. 5), the Red-bellied Nuthatch is identified from Red River Settlement by a specimen in the Smithsonian Institution, from Mr. Donald Gunn.

It is worthy of note that not one of the five foregoing birds has been collected by Mr. Ross in the Mackenzie River district. They probably do not go so far north.

53. *PARUS SEPTENTRIONALIS*.

Four specimens collected by me ('Ibis,' vol. iv. p. 5), after careful comparison, were pronounced to be of this long-tailed



western and northern species. It seems to be resident in the interior, and is one of the few birds to be met with during the long and dreary winter. Mr. Ross mentions it as "not rare" on the Mackenzie. The voice of this bird is like the first few notes of the peculiar call of the White-throated Sparrow (*Zonotrichia albicollis*). In winter, on the Saskatchewan, I found it feeding on the cones of the willow-bushes; and M. Bourgeau, who used to keep us in food during the rather "hard times" at Fort Carlton by snaring rabbits (*Lepus americanus*), declared that this bird ate the eyes of the rabbits when in his snares.

*Parus atricapillus* is given by Mr. Ross as rare, but a winterer on the Mackenzie, and is included in the 'Fauna Bor.-Am.;' but at the time that work was compiled, *P. septentrionalis* was not recognized as a distinct species.

#### 54. PARUS HUDSONICUS.

This bird, included in my original list ('Ibis,' vol. iv. p. 5), does not seem to range to the western plains; for neither during winter nor summer did I find it, after leaving the thickly wooded country to the east of Lake Winnipeg. I should mention that, although I did not procure a specimen, I have not the least doubt of this bird, as it was an old acquaintance of mine in Nova Scotia, where I had shot many. I now find, however, that Mr. Ross has obtained the Hudson's Bay Tit on the Mackenzie.

#### 55. EREMOPHILA CORNUTA.

Besides my specimen from Fort Carlton ('Ibis,' vol. iv. p. 5), the 'Fauna Bor.-Am.' records one from the same locality, while Mr. Murray mentions some from the shores of Hudson's Bay, whence I have since received specimens myself. My measurements range from 7 to  $7\frac{1}{2}$  in. in length, and  $4\frac{1}{4}$  to  $4\frac{1}{2}$  in. in the wing. I found the Shore Lark on the lower part of the Saskatchewan River, in small flocks, for about a week from the 4th of October, 1857. In the following spring I observed it near Fort Carlton on the 26th of April, and it was common on the prairies by the 2nd of May. I may here observe that the Calandre Lark given in the 'Fauna Bor.-Am.,' from a specimen presented to the British Museum by the Hudson's Bay Company, is not recognized in later works on American ornithology.

## 56. HESPERIPHONA VESPERTINA.

The authors of the 'Fauna Bor.-Am.' were mistaken in considering the Evening Grosbeak as a summer visitor to the Saskatchewan. The fact is, it only inhabits that region during the winter season, and was not observed by me subsequent to the 22nd of April; its breeding-country must consequently be far to the north, whence it arrived at Fort Carlton in the middle of November. The four specimens recorded ('Ibis,' vol. iv. pp. 5 & 6) were shot in a grove of maple-trees just outside the stockades of Fort Carlton. The maple is by no means a common tree on the Saskatchewan, one species only, the Ash-leaved (*Acer fraxinifolium*), reaching so far north and west. It is found in small groves in sheltered situations in the river valley, and these places are resorted to in the spring by the Indian women for the purpose of sugar-making. This operation is carried on in a very primitive manner, the tree being simply notched, and a piece of wood driven in just below the notch, to lead the sap, from the end of which it drips into little pannikins of birch bark laid at the foot of the tree to receive it. These are visited once or twice a day, according to the yield, which depends very much on the weather, frosty nights and warm days being the best. The syrup thus collected being boiled down in kettles, sugar is produced in the form of a hard cake—very pleasant to eat by itself, but nothing to be compared to cane-sugar in its sweetening property. The maples commenced to "run," or rather drip, on the 28th of March—the spring (1858—a rather early one) that I resided at Fort Carlton. Any unusually cold weather occurring will put a stop to the flow of sap, and cause lamentations among the old Indian squaws. But to return to the Grosbeaks: both species, the Evening (*H. vespertina*) and the Pine (*Pinicola canadensis*), were to be found, on and off, in small parties in the maple-trees I have mentioned, near Fort Carlton, during the whole winter; but the former were never as numerous as the latter. They appeared to feed alike on the seeds of the maple. For some days early in March, I lost sight of my friends; but on the 14th I was again allowed the gratifying sight of a flock of about five-and-twenty Evening Grosbeaks, which I took to be some that had wintered more to the south, and were merely passing on their northward journey,

having only stopped for the purpose of making a meal on their favourite food. Again, on the 24th of the same month, I found another travelling party, one-third of which only were females. This singularity I had moreover invariably noticed during the winter, that while of the Pine Grosbeaks those in the female plumage predominated, among the Evening Grosbeaks there were always as many, and usually more, in the brilliant dress of the males. Are the young birds longer in coming to maturity in the one species than in the other? Although I did not observe the Pine Grosbeak as late in the spring as the other, yet in autumn I saw it more than two weeks earlier, namely, on the 28th of October. The Evening Grosbeak is considered to be a western bird, and seems common on the Columbia River flowing into the Pacific. It has a very sharp and clear note in winter, is an active bird, and will stand a good charge of shot. The males and females, of which I examined a good number, differed but little in size, being from  $7\frac{5}{8}$  to 8 in. in length, and the closed wing from  $4\frac{3}{8}$  to  $4\frac{5}{8}$ . In winter the bill is of a light dull greenish yellow; eye dark hazel; feet flesh, and claws brown. Descriptions of both male and female appeared in the 'Zoologist' for 1859 (p. 6325), which I took from good specimens; and I have a couple of very well marked ones still in my possession. The figure in the 'Fauna Bor.-Am.' is good.

#### 57. PINICOLA CANADENSIS.

This species extends from Mackenzie River to Hudson's Bay (see preceding, No. 56; also 'Ibis,' vol. iv. p. 6, and Mr. Ross's list). Sir John Richardson mentions an instance of its wintering at York Factory, on Hudson's Bay.

#### 58. CARPODACUS PURPUREUS. (See 'Ibis,' vol. iv. p. 6.)

The stomach of one of the Purple Finches which I shot in the spring contained the centres of young aspen-leaves. It is also given in the 'Fauna Bor.-Am.,' from the Saskatchewan.

#### CHRY SOMITRIS TRISTIS.

This American Goldfinch is mentioned in the 'Fauna Bor.-Am.' as passing three months of the summer in the fur-countries; an individual is said to have been killed, but the locality is not<sup>stated</sup>. I may remark that the "fur-countries" is rather an indefinite region; however, I have little doubt that the bird

may be found on the Saskatchewan, as there is a specimen in the Smithsonian Institution from the Blackfoot country, which lies on the Upper Missouri, and stretches northward across the international boundary.

59. *CHRYSOMITRIS PINUS*. (See 'Ibis,' vol. iv. p. 6.)

I do not know of the Pine Finch having been obtained in the interior previously to my specimen from the Saskatchewan.

*CURVIROSTRA LEUCOPTERA*.

The White-winged Crossbill is given in the 'Fauna Bor.-Am.' as inhabiting the "dense spruce-forests" of the north; Mr. Murray records it from Hudson's Bay, and Mr. Ross gives it as a winter bird on the Mackenzie. Pine-woods being scarce on the Upper Saskatchewan, I did not fall in with it.

*ÆGIOOTHUS LINARIA*.

*ÆGIOOTHUS CANESCENS*.

Five specimens in my collection, obtained at Fort Carlton in the months of November, December, January, and March, were omitted in the original list ('Ibis,' vol. iv. No. 13), on account of the difficulty of deciding to which species they belonged. Neither can I now pretend to determine, as the specimens have not been returned from Washington; but only say that, from Professor Baird having one from Red River Settlement in the Smithsonian Institution, which he considers to be *Æ. canescens* of Gould, and Mr. Ross giving both on the Mackenzie, we may presume that two species inhabit the interior. Mr. Murray has also satisfied himself that a specimen from Hudson's Bay is *Linota borealis* = *canescens* (Gould). I think the best I can do is to say only that a species of Redpole is a winter resident on the Saskatchewan, where it is common enough, and leave this much-disputed question alone\*.

*LEUCOSTICTE TEPHROCOTIS*.

The Grey-crowned Finch was described in the 'Fauna Bor.-Am.' from a specimen killed on the Saskatchewan in May. I know nothing more about it.

\* Mr. Coues's Monograph of the *Ægiothi*, of which we have spoken in our last volume ('Ibis,' 1862, p. 186), should be consulted on this point. Probably Capt. Blakiston's specimens may be referable to *Æ. exilipes*, Mr. Coues's new species.—ED.



## PLECTROPHANES NIVALIS.

Of the Snow Bunting it is needless to say more than that it is very generally distributed throughout the country, from Hudson's Bay to the Rocky Mountains, and has been found breeding in the north; and that a few small parties sometimes winter on the plains of the Saskatchewan and at Red River Settlement where they can find any patches of ground free from snow, while the main body goes further south. On the Saskatchewan River they may be met with early in October, and at Red River Settlement by the 10th. Great flocks left Fort Carlton, bound southward, in the first few days of November; and after the 3rd of December I saw none there till late in March. At Red River Settlement, in 1859, I saw some on the 7th of April, and by the 10th there were large flocks. It was a very late spring, and large numbers were passing in their migration till the end of the month. In spring, I have seen them perched on the shingled roofs of the cattle-sheds in the warm sun, chirping away quite merrily with a clear note, such as I never heard them utter in the autumn; I consequently presume that in their breeding-places in the far north they may be found to have a pleasant song. I suppose that the Snow Bunting does not often perch on trees, although I once observed one do so; but as it was just after I had taken a shot into a flock of them, I fancied it might have been a wounded bird.

## 60. PLECTROPHANES LAPPONICUS.

Besides the specimen already recorded from the Saskatchewan ('Ibis,' vol. iv. p. 6), I have received the Lapland Bunting from the western shore of Hudson's Bay; and Mr. Murray notes it from the same locality. Sir John Richardson says that it breeds in the moist meadows on the shores of the Arctic Sea; and Mr. Ross includes it among the birds of the Mackenzie. Towards the end of May they were in large flocks on the prairies at Fort Carlton, and were then very fat.

## 61. PLECTROPHANES PICTUS.

In the 'Fauna Bor.-Am.' it is stated that this Bunting was observed associating with the preceding species at Fort Carlton. In the Smithsonian Institution there is a specimen from Pem-



bina, 49° N. lat., on the Red River of the North, which flows into Lake Winipeg, collected by Mr. R. Kennicott in September. Mr. Murray records it from Hudson's Bay; and Mr. Ross from the Mackenzie. My specimen ('Ibis,' vol. iv. p. 6) I shot at the summit of the "Boundary Pass" of the Rocky Mountains—so named by me on account of its western end being in United States territory, while the eastern is on the British side of the line. It was on the 6th of September, when I was recrossing the mountains from the Pacific side. The day previous having been Sunday, I had remained encamped, as was my usual custom, with my small party (which then consisted of only two Red River half-breeds, a Cree Indian, and a dozen horses), in a valley in the midst of the mountains. In fact, we had been driven to halt sooner than we had intended on the Saturday afternoon, on account of a severe storm of rain and wind; and even if we had wished, I do not think we could have travelled very well on Sunday; for the storm continued with much violence, and what fell upon us as rain was heavy snow higher up on the mountains. Next day, however (Monday), we made a start at 6 A.M., and travelled up the course of a creek until ten o'clock, when we halted for breakfast. Suspecting that we had a good day's work before us, I delayed as little as possible; so, repacking the horses, we were under way again in less than an hour and a half. After two or three miles we began a steep ascent, and were soon on ground entirely covered with snow, in which the tracks of some Kootonays, on whom I depended for guiding us across the pass, were visible. Passing along the edge of a very steep hill, it was as much as our horses or ourselves could do in some places to keep our footing. We now descended, crossed a thickly wooded gully, and then commenced the ascent to the watershed through thick forests. The snow increased in depth as we advanced, until on arriving at the crest it was two feet on the level, and in places drifted to double that depth. It was cold work trudging through the snow in thin leather mocassins, without socks; and, to make matters worse, it was blowing fresh, with more snow falling thickly. However, on arriving at the dividing ridge, with the assistance of the Indian, I unpacked the horse with the instrument-boxes, and obtained a reading of the barometer, which gave an altitude of 6030 feet. Packing up

again, we followed the crest of the ridge for a short distance, and were just going to descend, when I espied a bird on some open ground where the snow had been nearly all drifted away by the wind. All I had to do was to pull my gun out of its cover, and discharge the barrel which contained shot (for I seldom kept more than one of the two loaded with ball), and I secured a specimen of this Bunting. Of course I did not know what species it was at the time, and, considering the situation and circumstances, did not stop to inquire, but tied the bird up as nicely as I could, and commenced the descent. This was even more steep than the western slope, and for some distance we followed a zigzag path. It was not, however, very bad; and we soon arrived at a mountain torrent flowing eastward, thus regaining the waters which find their way to the Atlantic. The trail led on through thick forests down a valley due east, on either side of which the rocky tops of the mountains were often of very curious shapes, and the strata in places much contorted. There were also some magnificent cliffs—sheer walls of rock, rising hundreds of feet vertically, while the cascades of snow-water tumbling down the narrow gullies added motion to this wild and stern scenery. The snow became less and less as we descended, and on reaching the end of the valley we came to a snug little patch of prairie, where we found the Kootonay Indians encamped; and I was glad enough to unsaddle and let my horse go free, for we had travelled this day from six to six, with a halt of only one hour and a half. The horses had the first half of the next day to rest, and I took the opportunity, among other things, to skin and preserve some specimens.

#### 62. PLECTROPHANES ORNATUS.

The specimen ('Ibis,' vol. iv. p. 6) obtained by me, about eighty miles S.W. of Fort Carlton, is the only one I know of from the interior. The Chestnut-collared Bunting has, however, been found by the Americans on the plains of the Upper Missouri.

#### 63. PASSERCULUS SAVANNA.

There were three specimens of the Savannah Sparrow in my collection from Fort Carlton, although only one appeared in the original list ('Ibis,' vol. iv. p. 6). I find, moreover, that there is one from Red River Settlement in the Smithsonian Insti-

tution; Mr. Ross also notices it on the Mackenzie. This bird is not included in the 'Fauna Bor.-Am.,' nor is it mentioned by Mr. Murray among skins which he has received from the neighbourhood of Hudson's Bay; but this is not astonishing, as it is one of those quiet retiring birds which would be overlooked, except by a diligent ornithologist, and neither its habits nor its plumage are likely to attract the attention of a casual observer. I believe that I was the first to discover it in Nova Scotia, where I distinguished it from others of the genus by its note and manners. The former is a feeble chirping, and when you approach it, it will fly from one small bush to another without mounting in the air; it perches also on stone walls, and often on the ground, where it runs smartly. Wilson's description of the Savannah Sparrow is not minute enough; for he makes no mention of the dividing-line of white on the crown,—of the line of brown running from the lower mandible and bordering the white throat,—of a second line of brown from the slit of the mouth, encircling the ear-coverts, and joined, or nearly so, by a third from the back of the eye,—of the decided line of pale white which is thus left from the lower mandible to the back of the ear-coverts, between the first two of these brown lines; neither does he remark, as he has in the case of the Tree Sparrow (*Spizella monticola*), the almost concealed spot of brown on the breast, which is very apparent in the living bird, but might be passed unnoticed in a dead one or preserved specimen. Those individuals I have measured have been between  $5\frac{3}{8}$  and  $5\frac{1}{2}$  in. in length, and  $2\frac{3}{4}$  and  $2\frac{7}{8}$  in the wing. The Savannah Sparrow was a common bird at Fort Carlton during spring, where I observed it by the 4th of May. I also shot one near the eastern base of the Rocky Mountains in August, to the westward of which barrier I believe the bird has not been observed.

#### PASSERCULUS SANDVICHENSIS.

Observed by Mr. Ross on the Mackenzie, as well as *P. anthinus*; but this latter he marks as uncertain.

#### 64. POECETES GRAMINEUS.

The Bay-winged or Grass Finch is mentioned in the 'Fauna Bor.-Am.' as an inhabitant of the Saskatchewan, where I obtained

my specimen ('Ibis,' vol. iv. p. 6) ; and I find that there is a specimen in the Smithsonian Institution, from near the Red River Settlement. The eggs obtained by M. Bourgeau ('Ibis,' vol. iv. p. 6) were of a greyish white, blotched with light venetian red. The bird was caught on the nest by means of a butterfly-net.

#### 65. ZONOTRICHIA LEUCOPHRYS.

I found the White-crowned Sparrow was not uncommon along the east side of the Rocky Mountains in September, whence my specimen was obtained ('Ibis,' vol. iv. p. 6). Mr. Murray has seen specimens from Hudson's Bay. It is also recorded in the 'Fauna Bor.-Am.' from Great Bear Lake, and by Mr. Ross from Great Slave Lake.

#### 66. ZONOTRICHIA ALBICOLLIS.

The White-throated Sparrow, like the last species, must be pretty generally distributed throughout the interior, as my specimen ('Ibis,' vol. iv. p. 6) was from Fort Carlton. Mr. Murray has noted it from Hudson's Bay ; and I found it east of Lake Winipeg till the 15th of September, where my attention was drawn to it by its peculiar note. Sir John Richardson found it breeding on the Saskatchewan and at Great Bear Lake ; and Mr. Ross has obtained eggs on the Mackenzie.

#### ZONOTRICHIA GAMBELII.

Mackenzie River to Arctic Circle (Bernard Ross).

#### 67. JUNCO HYEMALIS.

At Fort Carlton, in the spring of 1858, I observed a single specimen of the Snow Bird on the 4th of April, but not again till the 16th, when my specimen ('Ibis,' vol. iv. p. 6) was obtained. This bird was common (the 'Fauna Bor.-Am.' says "uncommon") during my boat voyage the preceding autumn between Hudson's Bay and the Saskatchewan ; and I observed it in company with the Tree Sparrow (*Spizella monticola*) till the 18th of October. I also saw what I took to be this bird on the eastern slope of the Rocky Mountains ; but it may have been *J. oregonus*, the existence of which species I was not aware of at that time.

#### JUNCO OREGONUS.

Mackenzie River (Bernard Ross).

## 68. SPIZELLA MONTICOLA.

No sailor ever looked out more anxiously for the land than did I, after the long and dreary winter spent at Fort Carlton, watch for the arrival of the first harbinger of approaching spring. A few days of mild weather (which set in before the middle of March) having made considerable diminution in the depth of the snow caused me to look out with more than usual anxiety; and each day I mounted a convenient eminence near the fort, telescope in hand, in expectation of catching sight of some winged voyagers. At last, on the 15th, I was rewarded by the appearance of a Hawk, which I took to be the Sparrow-Hawk, sailing along high in the air; but, as a fresh nor'-wester was blowing, he was soon out of sight. I subsequently learned that, on the 14th, a White-headed Eagle, and considerable flocks of small white birds, which were doubtless Snow Buntings, had been seen by some buffalo-hunters on the prairies between Fort Carlton and the south branch of the Saskatchewan, where the snow had in many places disappeared from the ground; but, as I have before observed when speaking of *Plectrophanes nivalis*, I believe that some of these hardy birds remain in certain situations during the entire winter, and we must consequently look upon them as winterers. Waiting patiently for a few days, on the 18th I started out after dinner with my gun, and took a track which led from the fort across the plain to the south-east. The forenoon had been overcast with the last touch of a north-easter, bringing its usual accompaniment of snow; but the wind having died away by the middle of the day, the sun broke through and dispersed nearly all the cloud, so that, although the thermometer was only just up to the freezing-point, it was a delightful afternoon. There was still sufficient snow on the ground to cause walking to be awkward, but I laboured along in expectation of falling in with something in the way of the Falcon tribe, for such birds are said to be the first to make their appearance,—which, by the by, I have always thought rather curious; for surely, if the Hawks come, they must have some smaller birds to live upon, and I fancy that if we searched diligently we should find them. Having gone some distance, I turned homewards with the full intention of inserting in my journal, “Not a single spring



visitor ;” but when I reached the bottom of the hill leading down from the plain into the river valley in which the fort is situated, I observed a dull-coloured bird fly across the track, and alight among some maple-trees ; I was soon up with him, and bringing him down, I found to my delight that it was a Tree Sparrow (*S. monticola*) (‘Ibis,’ vol. iv. p. 6). In my joy at having killed the first spring bird, I yelled a sort of Indian war-whoop, and went off whistling to the fort. Its crop contained the interior grains of the Snow-berry (*Symphoricarpus racemosus*), which M. Bourgeau, the botanist, determined for me, and said that he had met with the plant “*partout*” west of Lake Winipeg, and that it was common as a bush about two feet high in the river valley at Fort Carlton. A fresh south-west wind blew on the 19th, and on the 20th I found another Tree Sparrow, and the next day a party of seven or eight. After this the spring wore slowly on, and it was some time before we received any more additions in the ornithological way ; so that the Tree Sparrow may be considered by far the earliest of the *Insessores*. The ‘Fauna Bor.-Am.’ remarks that it leaves the Saskatchewan in the third week in April, and goes farther north to breed. Mr. Murray has received specimens from Hudson’s Bay ; and Mr. Ross records it on the Mackenzie ; while I found it from York Factory, on the western coast of the Bay, in August, to Lake Winipeg and up the Saskatchewan till the 14th of October. It was then nearly always in company with *Junco hyemalis* ; but that bird did not arrive until some time after it in the spring. The Tree Sparrow may always be distinguished from among the other sparrow-like Buntings, when in a wild state, by the chestnut of the head and the dark spot on the breast. In 1858 I met with it as late as the 28th of October, on the north branch of the Saskatchewan, and found that its range extended to the eastern base of the Rocky Mountains.

#### SPIZELLA SOCIALIS.

Notwithstanding that the Chipping Sparrow ranges across the continent from the Atlantic to the Pacific, it has not been found, until lately, in the interior of British North America, except at Pembina, where the boundary-line (the 49th parallel) crosses the Red River of the North, from which locality there is a specimen in the Smithsonian Institution. Mr. Ross, however,

in his published list referred to at the beginning of this paper, records both the common one and the striped-crowned variety on the Mackenzie.

69. *SPIZELLA PALLIDA*.

The Clay-coloured Bunting attracted my attention first on the 21st of May, at Fort Carlton, by its peculiar note, which resembles, as much as anything I know, a sharp edition of the buzzing made by a fly in a paper box, such as boys confine them in for amusement; or I may also liken it to a very faint imitation of the sound of a watchman's rattle. This it utters when perched on some young tree or bush, sometimes only once, but at others as many as four times in quick succession. The eggs, found by M. Bourgeau ('Ibis,' vol. iv. p. 7) in a nest in a Snow-berry bush two feet from the ground, were four in number, of a greenish blue, speckled at the large end with brown. This bird is noticed in the 'Fauna Bor.-Am.,' but nothing concerning its range; Mr. Ross also found it on Great Slave Lake. It does not appear to inhabit the eastern part of the continent.

70. *MELOSPIZA MELODIA*.

Several specimens of the Song-Sparrow were shot at Fort Carlton ('Ibis,' vol. iv. p. 7). First seen on the 21st of April.

71. *MELOSPIZA LINCOLNII*. (See 'Ibis,' vol. iv. p. 7.)

Also obtained at Fort Carlton, and by Mr. Ross on the Mackenzie.

*MELOSPIZA PALUSTRIS*.

Rare at Great Slave Lake (Bernard Ross).

*PASSERELLA ILIACA*.

The 'Fauna Bor.-Am.,' as well as Mr. Ross, notes the Fox-coloured Sparrow as breeding in the wooded districts of the fur-countries, up to 68° N. I observed it (for it was a bird I knew well in Nova Scotia) between Hudson's Bay and Lake Winnipeg in September, and on the Saskatchewan north branch in October.

72. *GUIRACA LUDOVICIANA*.

Besides my specimen ('Ibis,' vol. iv. p. 7), the 'Fauna Bor.-Am.' records the Rose-breasted Grosbeak from near the Saskat-

chawan; and Mr. Donald Gunn sent one, from Red River Settlement, to the Smithsonian Institution. Both *Guiraca melanocephala* and *Cyanospiza amœna* have been obtained from Fort Union, at the mouth of the Yellowstone, and may reach British territory.

#### PIPILO ERYTHROPHthalmus.

A specimen from Red River Settlement, procured by Mr. Donald Gunn, is in the Smithsonian Institution at Washington.

#### 73. PIPLO ARCTICUS.

This bird, described by Swainson in the 'Fauna Bor.-Am.,' is there stated to frequent moist shady clumps of wood, being generally seen on the ground. I only shot one individual at Fort Carlton ('Ibis,' vol. iv. p. 7); but I noted at the time in my journal (which I wrote from day to day), "This bird uttered a loud harsh note, and, unless disturbed, was usually perched near the top of a conspicuous tree in the woods." The eye, in an adult male, was bright reddish orange.

#### DOLICHONYX ORYZIVORUS.

The Boblink, or "Skunk-bird" of the Cree Indians, mentioned in the 'Fauna Bor.-Am.' as a summer visitant to the Saskatchewan, was only once seen by me, when travelling between Forts Carlton and Pitt. Had I been stationary during the summer (for I defy any one to collect much when constantly travelling by land), with nothing to do besides collecting birds, I might have picked up many more to swell this list; but, as it was, my ornithological researches were mostly confined to the winter (when there were but a few resident birds) and the spring. There is a specimen of this species in the Smithsonian Institution, from the Red River of the North, in lat. 49°.

#### 74. MOLOTHRUS PECORIS.

Although the Cow-bird is noticed in the 'Fauna Bor.-Am.,' no specimen is mentioned. I observed it at Red River Settlement on the 28th of April, and as far west as the base of the Rocky Mountains. Three individuals which I shot at Fort Carlton, all males ('Ibis,' vol. iv. p. 7), measured  $7\frac{1}{2}$  to  $7\frac{7}{8}$  in. in length, and  $4\frac{3}{8}$  to  $4\frac{5}{8}$  in. in the wing. They are easily mistaken

for Grackles. Mr. Ross mentions the Cow-bird as very rare on the Mackenzie.

#### 75. AGELÆUS PHŒNICEUS.

The Swamp Blackbird ('Ibis,' vol. iv. p. 7) arrived in the neighbourhood of Fort Carlton on the 4th of May, 1858; or, at least, I did not observe it before that, notwithstanding that I was out every day at that season with my gun. I fancy, however, that it is an early spring bird; for I saw it at Red River Settlement the following spring (which was a very late one) on the 26th of April. No doubt, had there been a garden or other cultivated land about the fort, I should have found it earlier on the Saskatchewan; but husbandry is almost entirely neglected in the territories of the Hudson's Bay Company, where vegetable diet, excepting wild berries, is despised by the carnivorous fur-traders and voyageurs. I found this bird as far west as the Rocky Mountains. Mr. Murray records a specimen from Hudson's Bay, and Mr. Ross on the Mackenzie.

#### AGELÆUS GUBERNATOR.

Common on the Mackenzie (Bernard Ross).

#### AGELÆUS TRICOLOR.

Rare on the Mackenzie (Bernard Ross).

These are two more instances of the Pacific-coast birds frequenting the Mackenzie River district.

#### 76. XANTHOCEPHALUS ICTEROCEPHALUS.

I saw this bird at Red River Settlement on the 29th of April. Two, shot at Fort Carlton in May ('Ibis,' vol. iv. p. 7), had the remains of insects and Snow-berries (*Symphoricarpus racemosus*) in their stomachs. Mr. Murray also notices it from Hudson's Bay; but whether this means the shores of that bay, or from some part of the H. B. Company's territories, I cannot tell. Sir John Richardson did not observe it eastward of Lake Winipeg, while its eastern limit in the United States is Illinois. However, it has been found in Greenland, and may range to the eastward in the north.

#### 77. STURNELLA MAGNA.

My specimen ('Ibis,' vol. iv. p. 7), having been compared with specimens of both *S. magna* and *S. neglecta* given me by Professor

Baird, is considered to be of the original species. One, however, in the Smithsonian Institution, from about 60 miles south of Red River Settlement, is called *S. neglecta*. Probably both species inhabit the British prairies. One or the other was seen at Fort Carlton by the 11th of April, and found as far as the western base of the Rocky Mountains, on the Tobacco Plains. It was supposed to have been seen also near Fort Carlton as late as the 3rd of November, having been taken by one of the gentlemen at the fort for a Quail.

#### 78. *ICTERUS BALTIMORE*.

Besides my specimen ('Ibis,' vol. iv. p. 7) of this showy bird, it is likewise recorded in the 'Fauna Bor.-Am.,' from the Saskatchewan.

#### 79. *SCOLECOPHAGUS FERRUGINEUS*.

The specimen recorded ('Ibis,' vol. iv. p. 7) as killed on the 31st of March was the first which I saw at Fort Carlton in the spring; it was in good condition, and the stomach contained masticated insects, which appeared to be small *Carabi*. It frequented a small pond still partially covered with ice and snow. It was a male, and measured 9 in. in length, and  $4\frac{5}{8}$  in. in the wing. The Rusty Blackbird is also given by Mr. Ross as common on the Mackenzie to the Arctic Circle.

#### 80. *SCOLECOPHAGUS CYANOCEPHALUS*.

My specimen of this bird ('Ibis,' vol. iv. p. 7) was a male, and measured 10 in. in length, and  $5\frac{1}{8}$  in. in the wing. A female procured at the same time measured  $8\frac{1}{2}$  and  $4\frac{3}{4}$  in., while two others came between these measurements. Along with these birds two nests were taken, each containing six eggs. There were several together in a swampy place, from one foot to four feet above the ground, on willow-bushes. One, however, was at the base of a willow-bush and resting on the ground, where a small excavation had been formed, in which the nest was made, in this case with grass without any mud, and lined with horsehair. Not having been aware of the existence of any species but the Rusty Grackle, it was quite by chance that I obtained a specimen of Brewer's bird. I believe the reason was because I fancied I observed a difference in the birds, considering some to be larger than others; but



I find no notes concerning them in my journal, which I have carefully gone over. The nests which I found were usually, as above noted, in swampy thickets, about six feet from the ground, of about the same size as those of the American Robin, and made much in the same way, of sticks, mud, &c., and lined with hair and fine grass; they were generally affixed to the contiguous stems of a willow-bush. Now, whether in thus describing the nest I am speaking of *S. ferrugineus* or *S. cyanocephalus*, I am at a loss to know. All I can say is that I obtained the two birds in the same locality; but one was early in the spring, and the other in June. Whether one is a more northern bird than the other, or whether one builds on the ground, and the other on bushes, I cannot at present undertake to say; further researches must determine. In the meantime I will observe that I found one or other of these birds common from York Factory, on Hudson's Bay, to the Saskatchewan Plains, where they remained till late in October. *S. ferrugineus* has been noticed in the 'Fauna Bor.-Am.,' and Mr. Murray records specimens from Hudson's Bay; but, except a specimen from Pembina, where the international boundary-line crosses the Red River of the North, which is now in the Smithsonian Institution, *S. cyanocephalus* had not, I believe, been previously obtained in the interior of British North America. Now that I see Mr. Ross's list, however, I find that he has also procured it on the Mackenzie.

#### 81. QUISCALUS VERSICOLOR.

In September I found the Crow Blackbird sparingly between Hudson's Bay and Lake Winnipeg, observing the last one on the Lower Saskatchewan on the 4th of October. The following spring, I did not see this species at Fort Carlton before the last week in April; so that it is not nearly so early a bird as the Rusty Grackle. M. Bourgeau found the nests clustered together in a willow-thicket, at the end of June, on the Saskatchewan Plains; they were over six feet above the ground, and no mud was used in their manufacture. One was also found in the old nest of a Magpie. With regard to the peculiar mode of carrying its tail which this bird has during flight, I noticed that it was only done by the males, and that instead of being a twist of the whole tail, as has been supposed, and which it certainly resembles, it is

done by the outer tail-feathers being considerably elevated and closed inward above the others, back to back. The eggs vary in the ground-colour from greenish blue to olive. My specimen ('Ibis,' vol. iv. p. 7) was from Fort Carlton. I have received one from Hudson's Bay; Mr. Donald Gunn has collected them at Red River Settlement, and Mr. Bernard Ross on the Mackenzie.

## 82. CORVUS CARNIVORUS.

The American Raven (the "Crow" or "Corbeau" of the English and Canadian half-breeds, and the "*Kā-kā-kiu*" of the Cree Indians) is very generally distributed throughout the northern interior, but seems most numerous on the buffalo plains of the west. Having lived nearly two years in the Indian country, I have had very frequent opportunities of observing the economy of the American bird, and must exonerate him from the stigma of exclusiveness which has been attached by naturalists to the family name from observation of his European brother. "Brother Jonathan" certainly, on the western prairies, is by no means a solitary bird, nor do the Indians inhabiting that region seem to hold any ridiculous ideas of ill omen, or such like superstitious notions, concerning him; it may be, that being better known, and his hoarse croak so often heard, both in times of plenty and seasons of want, he is regarded more as a familiar friend than anything else. During the day, the Raven is usually met with in pairs, except when the carcase of a dead animal draws a number together, or a general slaughter of buffaloes by the Indians affords a repast for all the wolves and ravens of the neighbourhood. At night, however, during winter, they repair to some chosen resting-place, usually a clump of trees on the edge of the prairie, and there roost in one immense body. One of such "bedrooms" was only about a mile distant from Fort Carlton, and my attention was first drawn to it by noticing that all the Ravens which I saw about sunset, no matter where I happened to be, were invariably flying towards the same point. Having been out one day with my gun, I made a point of returning to the fort in the evening by that quarter; and I was surprised by finding a clump of aspen-trees, none of which were above twenty-five feet high, or thicker than one's arm, filled with Ravens, which on my near approach took wing and flew round and round. I judged, by counting a

portion, that there were upwards of fifty at that one spot: I shot one, which I preserved ('Ibis,' vol. iv. p. 7). I found that this was a regular roosting-place, and my friends continued to use it during the entire winter. What also interested me was the wonderful regularity with which they repaired to their roosting-place in the evening, and left it again in the morning, by couples, for their day's hunt. One pair used to fly directly over the fort regularly every morning; and as I sat watching for the minute-hand of the chronometer to come round to the hour of observation for the magnetic instruments, they would give a croak or two as a morning salutation,—at any rate I gave them credit for such civility, and noting the time, I found it the same, within two or three minutes; but as the days lengthened, it became a little earlier and earlier each morning. On a cloudy or unusually cold morning they were sometimes a few minutes late, but their usual time was, as near as possible, half an hour before sunrise. In March I observed that the Ravens became restless, and were often to be seen chasing one another in the air, and wheeling about in circles. I also, on some occasions, heard very prolonged croaks—more, in fact, approaching to cawing, and I judged that these signs were indicative of the approaching love-season. In April they paired off, and the roosting-place spoken of became deserted. I should be glad to discover if this habit of congregating in winter has been observed in any other species. During an excursion which I made on the prairies about a hundred miles south-west of Fort Carlton, in company with a party of hunters who went out to obtain buffalo-meat for the fort, I found several nests of the Raven, with eggs. One was in a small tree close to a lake, and not more than fifteen feet above it; it contained six eggs, was about a foot in diameter, composed of sticks, and lined with buffalo-hair and, what may seem rather singular, pieces of scarlet cloth; but these latter had doubtless been picked up about the Indian camping-grounds.

### 83. CORVUS AMERICANUS.

I was never fortunate enough to obtain a specimen of the "Barking Crow," or "Rook," as this bird is called, on the Saskatchewan, where it is only a summer visitor; M. Bourgeau, however, captured one with its eggs ('Ibis,' vol. iv. p. 7). I

heard of this bird being seen near Fort Carlton on the 26th of March, in 1858; and Mr. Donald Gunn informed me that it arrived at Red River Settlement in 1859, which was a late spring, before the 4th of April. The 'Fauna Bor.-Am.' mentions that it does not approach within 500 or 600 miles of Hudson's Bay; but I find that Mr. Murray, whose 'Contributions to the Natural History of the Hudson's Bay Company's Territories' I have noticed before, mentions a specimen from Trout Lake post, between Lake Winipeg and Hudson's Bay. There is also a specimen in the Smithsonian Institution from Nelson River, which flows into Hudson's Bay; and Mr. Ross says that it goes as far north as latitude 61°, on the Mackenzie.

#### 84. PICICORVUS COLUMBIANUS.

I only observed this bird in the Rocky Mountains, at the Kootenay Pass ('Ibis,' vol. iv. p. 7).

#### 85. PICA HUDSONICA.

A resident during the entire year on the Saskatchewan ('Ibis,' vol. iv. p. 7), but said to be rare to the east of Lake Winipeg. Mr. Ross notices it as ranging to the west side of the Rocky Mountains in the far north.

#### 86. CYANURA CRISTATA.

There is a specimen in the Smithsonian Institution from Red River Settlement, where I observed the Blue Jay in the spring. I also saw it in some pine-woods near Fort Carlton in March, and the previous autumn on the Lower Saskatchewan; but I never observed it to the westward. Perhaps the absence of pine-woods in the prairie country may be sufficient to account for this. The 'Fauna Bor.-Am.' mentions that it seldom visits Hudson's Bay; and during my boat-voyage I noticed the absence of it on the route between York Factory and Lake Winipeg. Mr. Ross does not include it among the birds of the Mackenzie.

#### 87. CYANURA STELLERI.

Besides the specimen obtained by Mr. Drummond in the Rocky Mountains, and described by Swainson in the 'Fauna Bor.-Am.,' I believe mine ('Ibis,' vol. iv. p. 8) is the only other example from British territory.

